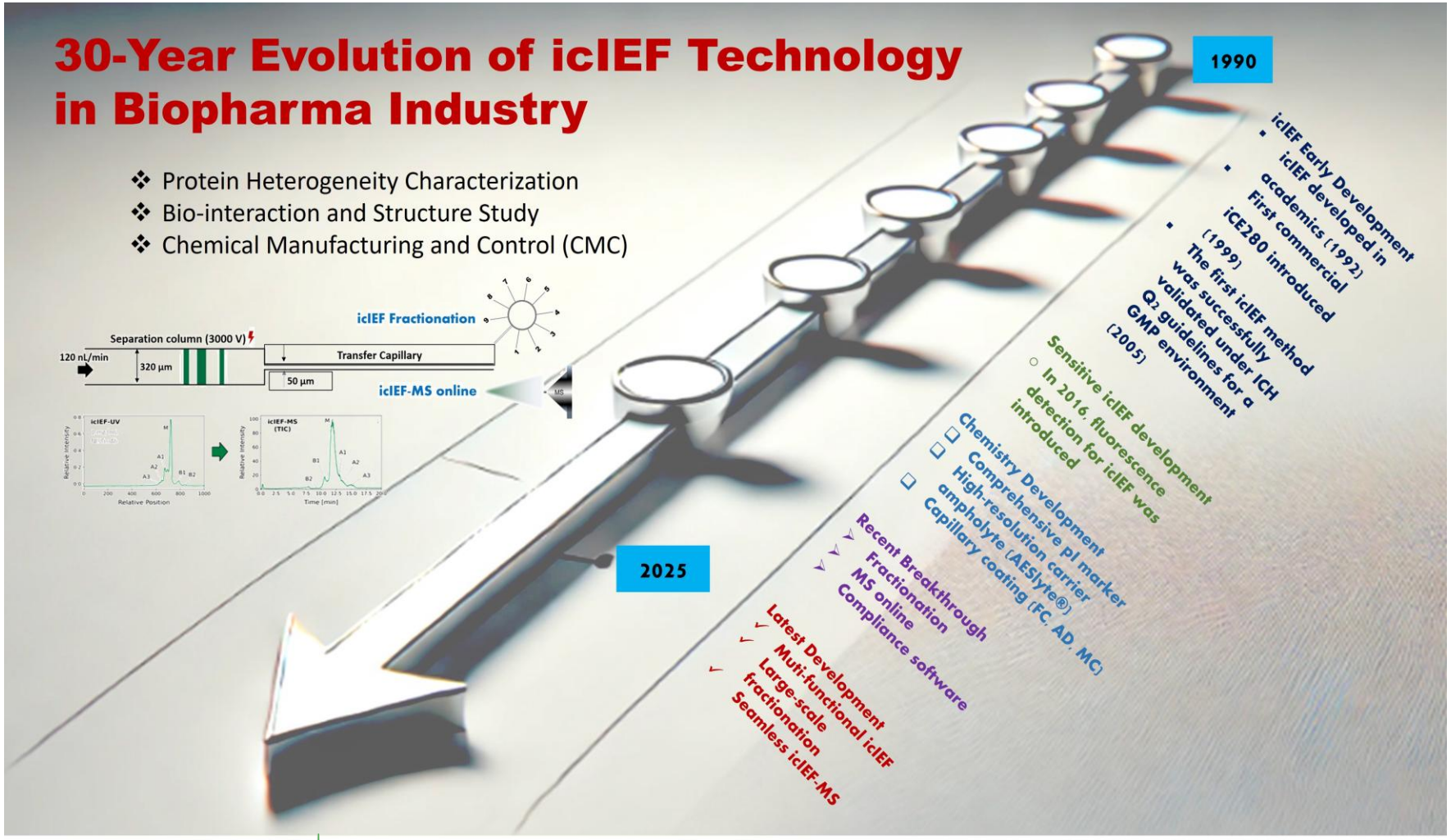
30-year Development of icIEF Technology



T. Bo, F. Yang, B. Yan, D. A. Michels, T.M. Huang, J. Pawliszyn, Recent developments of imaged capillary isoelectric focusing technology for in-depth biopharmaceutical characterization, **Trends in Analytical Chemistry** 187 (2025) 118212

AES – 15 Years of Dedication in icIEF

CEInfinite

- Carrier Ampholyte

- Cartridge

- Instrument

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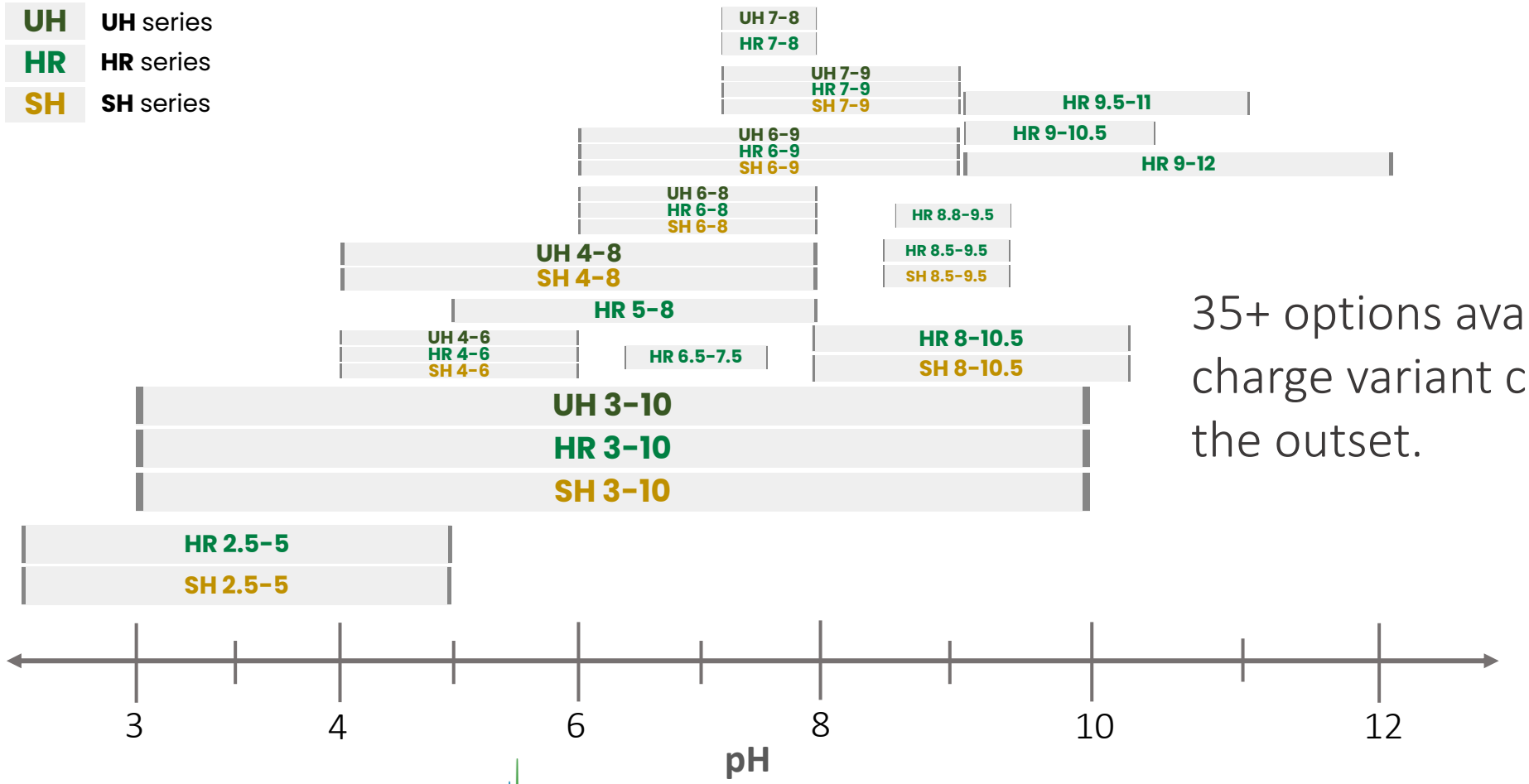
AESlyte®



35+ options available to optimize your charge variant characterization from the outset.

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AES – Whole Column Imaging Detection (WCID) Cartridges

CEInfinite Cartridges with Static Coated Capillaries

- Fluorocarbon (FC)
- Acrylamide Derivative (AD)
- Methylcellulose (MC)

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AES – CEInfinite System

A Hesitation in System Integration

- Learning curve VS. robustness & flexibility
- Chromeleon & Empower driver
- High yield, peak-based fractionation
- “Reverse Polarity” setup for optimal acidic side purity
- Auto-fractionation and online-MS coupling Capabilities

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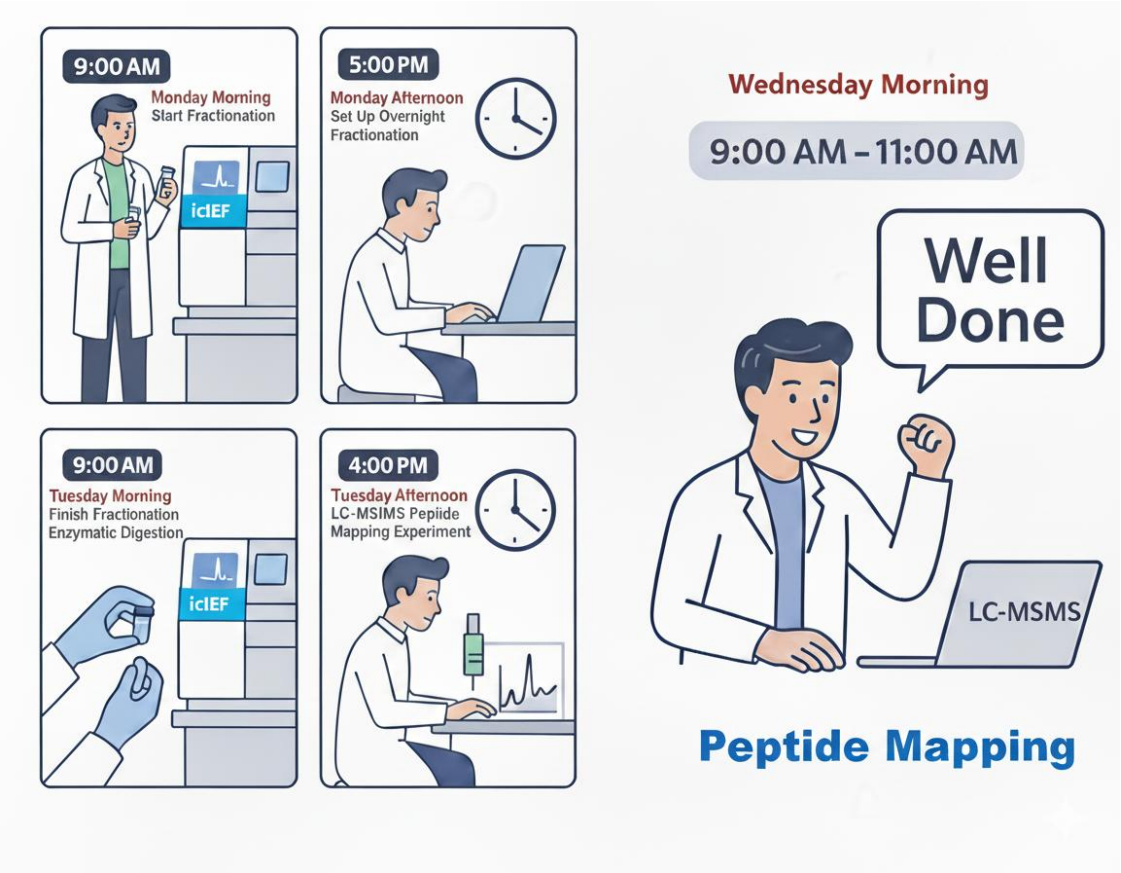
The Next-gen Ultra-high Yield Feature



Ultra-high Yield for the “Agile” Style

- 2 - 3X higher resolution than the short-cartridge setup
- 4 - 5X yield than the old model
- Overnight fractionation for peptide mapping
- Hands-free auto-fractionation

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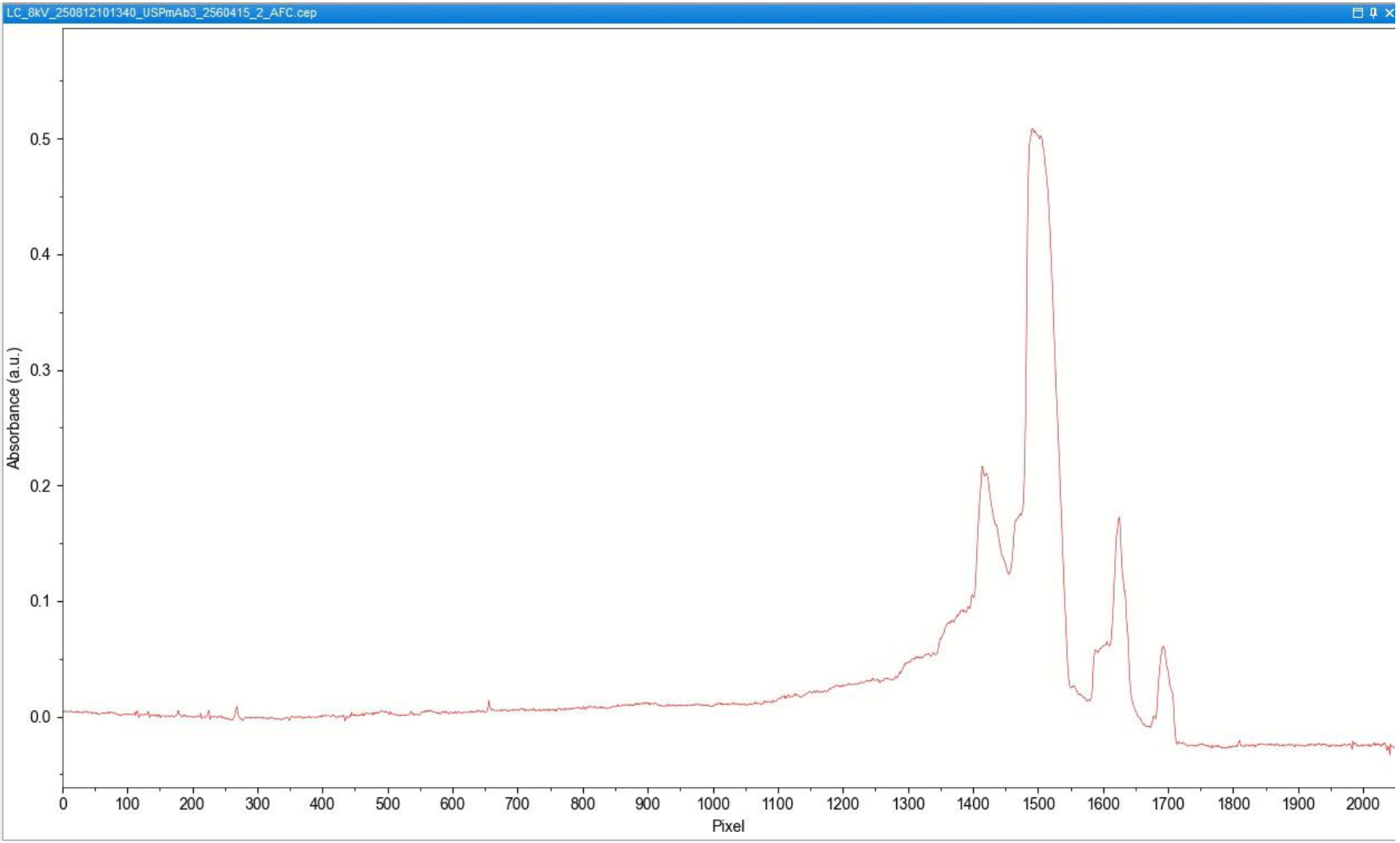
The Next Gen Ultra-High Yield Feature



Focusing Finished

B2 Fraction

B1 Fraction

M Fraction

A1 Fraction

A2 Fraction

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A 12-run Fractionation for Another Reference Protein

(n=12runs)	Concentrate 1 (mg/mL)	Concentrate 2 (mg/mL)	Concentrate 3 (mg/mL)	Concentrate Average (mg/mL)	Volume(µL)	Amount(µg)
Basic Peak	0.035	0.045	0.038	0.039	140	5.5
Main Peak	0.371	0.492	0.468	0.444	140	62.2
Acidic Peak1	0.159	0.174	0.235	0.189	110	20.8
Acidic Peak2	0.075	0.069	0.088	0.077	150	11.6
Acidic Peak3	0.028	0.031	0.033	0.031	105	3.3